

Notice of Allowability

Application No.

10/725,436

Applicant(s)

NEMOTO, KENJI

Examiner

Terry L. Englund

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amdt (Jan 18, 2006).
2. ☒ The allowed claim(s) is/are 4-6 and 10-13 (now renumbered as 1-7, respectively for printing purposes).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Within the amendment submitted on Jan 18, 2006:

Page 5, line 5: added --second-- prior to "secondary";

Page 6, line 19: changed "pluralities" to --plurality--;

line 20: changed "an emitter" to --a collector--;

line 21: changed "a collector" to --an emitter--;

Page 7, line 3: changed "an emitter" to --a collector--;

line 4: changed "a collector" to --an emitter--;

Claim 11, line 22: changed "pluralities" to --plurality--;

line 23: changed "an emitter" to --a collector--;

line 25: changed "a collector" to --an emitter--;

line 32: changed "an emitter" to --a collector--;

line 34: changed "a collector" to --an emitter--; and

Claim 12, line 13: added --second-- prior to "secondary."

All of the changes described above address/correct what are considered oversight type problems, which do not affect the scope of the claims. Page 5 and claim 12 had the term --second-- added to clearly relate "said secondary current source" back to "said second bipolar

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transistor being connected in series between a second secondary current source and said node” cited on preceding lines within the paragraph, or claim. Using the applicant’s own Fig. 2 as a reference, the second bipolar transistor corresponds to NP21; the second secondary current source corresponds to P2; the node corresponds to the common emitter connection between NP1m and NP2m; and the control signal corresponds to OUT. The changes with respect to pluralities/plurality on page 6 (line 19), and claim 11 (line 22), provide more consistent labeling throughout the disclosure and claims. Also, if left unchanged, the phrase “each of said pluralities of third npn differential pair transistors” could possibly imply more than one plurality of those transistors. Lines 20-21 of page 6, lines 3-4 of page 7, and lines 23, 25, 32 and 34 of claim 11 had their emitter and collector labels reversed. Using the applicant’s own Fig. 2 as a reference, transistors NP11/NP21 correspond to the first/second differential pair transistors; transistors NP12-NP1m correspond to the plurality of third npn differential pair transistors; and transistors NP22-NP2m correspond to the plurality of fourth npn differential pair transistors. Since the collector of “a first one” within each plurality is connected to the emitter of its corresponding differential pair transistor, this disclosure/limitation forces transistors NP12/NP22 to be the “first one” within its corresponding plurality. Using only three transistors within each plurality as an example, transistors NP1m/NP2m would be the third (e.g. k-th) transistors, and their collectors would be coupled to the corresponding emitter of the second (e.g. k-1-th) transistors, whose collectors would in turn be coupled to the emitters of the “first one” transistors NP12/NP22. Therefore, without the Examiner’s Amendment changes to pages 6 and 7, as well as to claim 11, the relationships between the collector/emitter of the k-th, k-1-th, and “first one” transistors

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would be misleading with respect to how the transistors are actually connected (e.g. as shown, and understood, within the applicant's Fig. 2).

RESPONSE TO AMENDMENT

The amendment submitted on Jan 18, 2006 was reviewed and considered with the following results:

The cancellation of claims 1-3 and 7-9 rendered their respective objection(s), and/or rejection(s), as described in the previous Office Action, moot.

Amended claims 4-6 and 10-11 overcame their objection(s), and/or rejection(s), described in the previous Office Action, and those objections/rejections have now been withdrawn. Although various other concerns were noted when the active claims were reconsidered, these were all addressed/corrected by the Examiner's Amendment described above.

Therefore, there is no known objection or rejection remaining within the present application.

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

None of the prior art references cited shows or discloses a constant voltage generating circuit comprising the plurality of first/second transistors, primary current sources, two resistors, and current control means as recited within each of independent claims 4 and 5. More specifically, none of the references clearly shows/discloses the two resistors connected between a corresponding primary current source, and 1) the emitter of the first one of the plurality of second pnp transistors, wherein "a connection point between the two resistors being connected to

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the base of said another one of the plurality of second pnp transistors” as recited within claim 4, or 2) the first one of the plurality of second npn transistors, wherein “a connection point between the two resistors being connected to an emitter of said another one of the plurality of second npn transistors” as recited within claim 5. Each of claims 6, and 10-12 depend on claim 4 or 5, and claim 13 depends on claim 12. Since there is no motivation to modify or combine any prior art reference(s) to ensure the constant voltage generating circuit comprises the specific relationship between the two resistors and the plurality of second transistors as recited within either independent claim, the claims are deemed patentably distinct over the prior art of record.

Claims 4-6, and 10-13 are allowed, and have been renumbered as 1-7, respectively for printing purposes. The renumbering takes into account the cancellation of claims 1-3, and 7-9.

Any comments considered necessary by the applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Any inquiry concerning this communication, or previous communications, from the examiner should be directed to Terry L. Englund whose telephone number is (571) 272-1743. The examiner can normally be reached Monday-Friday from 7 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Tim Callahan, can be reached on (571) 272-1740.

The new central official fax number is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1562.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Terry L. Englund

25 January 2006